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ABSTRACT

The Learning Activity Packets (LAPs) contained in this manual are designed to assist the beginning user in understanding DOS (Disk Operating System). LAPs will not work with any version below DOS Version 3.0 and do not address the enhanced features of versions 4.0 or higher. These elementary activities cover only the DOS commands necessary to enable the first time user to become comfortable and knowledgeable with the utility system software and the operational command manuals. LAPs are individual packets of instruction which allow a student to learn at his/her own pace. Each LAP outlines objectives and required materials, and provides numerous figures for illustration, test questions, and answers. Activities include: (1) "System Components/Disk Operating System"; (2) "Keyboard/System Boot/Default Drive"; (3) "File Names/Directory Command/Internal and External Files"; (4) "Format Diskette"; (5) "Copy/Compare/Erase Files"; (6) "Disk Organization/Set Up"; (7) "Remove Subdirectories"; (8) "Paths"; and (9) "Batch Files." The manual is preceded by a glossary of microcomputer technology and a list of DOS commands. (MAS)

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ED 381 154

Introduction to Disk Operating System DOS

IR017080

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CIMC

Teacher Edition

92-008366

Oklahoma Department of Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

BO 1035

Learning Activity Packets

Disk Operating System—DOS

Teacher Packet

Developed by the
Curriculum and Instructional Materials Center
for the Division of Vocational Business Education
Oklahoma Department of Vocational and Technical Education

92-008366

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INTRODUCTION TO DISK OPERATING SYSTEM

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LAP 5	Copy/Compare/Erase Files
LAP 6	Disk Organization/Set Up
LAP 7	Remove Subdirectories
LAP 8	Paths
LAP 9	Batch Files

FOREWORD

We believe that the single most effective way to improve educational programs is through the development and implementation of a sound instructional materials delivery system. This Learning Activities Packet for Disk Operating System 3X is designed to assist in the understanding of the operations of the computer and to enhance the productivity. This knowledge is fundamental in establishing a foundation for the mastering of the complex operations of software/hardware.

We value the Disk Operating System as an instructional asset to build program uniformity, set minimum program standards, and provide a basis for teacher and student accountability. It is not our intent to limit the instruction of the disk operating system to these LAPS. It is our belief that the total vocational business program will benefit through the achievement of these competencies.

Dr. Roy Peters, Jr., State Director
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Oklahoma Department of Vocational and Technical Education Vocational Business Education staff who provided leadership and direction on this project also deserve special recognition.

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Only with the close cooperation of the Curriculum and Instructional Materials Center staff was this curriculum developed. Sincere thanks are shared with Dr. Brenda Stacy, CIMC Coordinator and Dr. Lynna Ausburn, Development Coordinator.

Special appreciation is offered to the other individuals on the CIMC staff who functioned in important supportive roles throughout the development of *Introduction to Disk Operating System — DOS* curriculum: Mrs. Barbara Kuehl, former CIMC secretary and currently Vocational Business Education secretary; and Camille Baker and Connie Romans, Technical Writers, who proofread the final copy.

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PREFACE

DESIGN

The Learning Activity Packets (LAPS) for the Disk Operating System (DOS) are planned to assist the beginning user in the understanding of DOS. The DOS LAPS will not work with any version below DOS Version 3.0 and do not address the enhanced features of DOS versions 4.0 or higher. LAPS are not designed to replace DOS manuals or other resource materials.

These elementary LAPS cover only the DOS commands to enable the first time user to become comfortable and knowledgeable with the utility system software and the operational or DOS command manuals.

LAPS are individual packets of instruction which permit a student to learn at his or her own pace. After successfully completing the competencies for each LAP, the student can continue to the next LAP.

ORIENTATION

Each LAP or set of LAPS should be preceded by an orientation. Students should be acquainted with the computer, monitor, keyboard, printer, disk drives and hard disk before beginning the first LAP. Prior to the first LAP, it is suggested that the instructor work through the first LAP with the students to assure complete understanding of the procedure. As the students continue progressing through the LAPS, the instructor becomes a LAB partner—observing constantly, demonstrating and explaining as needed. With perseverance and a continued effort to achieve, the student will continue his or her success.

ADVANTAGES

Student learning is enhanced with the Teaching of LAPS for certain areas of instruction. Students are provided individual attention resulting in continuous re-enforcement of knowledge.

LAP ORGANIZATION

1.	LAP NUMBER	Each LAP and pages of each LAP are numbered to maintain sequence of instruction.
2.	LAP NAME	Each LAP is named to help the student locate the subject of interest.
3.	OBJECTIVES	Objectives are the competency or mastery the student should be able to perform upon completion of each LAP.

4.	QUESTIONS	End of LAP questions will assist in measurement of student understanding of material presented.

MICROCOMPUTER TERMINOLOGY

BYTE	Each character of information is stored as one byte within the microcomputer. Each byte consists of 8 binary digits called bits.
BATCH FILE	File containing a series of DOS commands to be automatically executed.
COLD BOOT	The process of starting the computer with all system components powered off.
CPU	CPU is an acronym for Central Processing Unit and refers to the electronic circuits of a computer that process the data. CPU is the brain of the computer which performs the analytical, computations and logical functions occurring inside the computer.
CURSOR	The flashing underscore that indicates where the next data will appear on the screen.
DEFAULT	Preset or assumed by the system. The drive you are in when the computer is booted.
DATA	Information.
DISKETTE	Magnetic media used for storing information—5¼ inches or 3½ inches in size.
DATA DISKETTE	Diskette containing stored information or data—not the program diskette or software.
DIRECTORY	A list of filenames with extensions, size of file, date and time file was stored.
DISK	Usually refers to a fixed or hard disk.
DOS	Acronym for DISK OPERATING SYSTEM. DOS consists of many programs that supply the routines for carrying out basic tasks on the computer. Through DOS, the computer equipment and programs work together.
DOS PROMPT	The letter of the Drive you are using, i. e. A>, B> or C>. Informs user that the computer is ready to accept commands.
DRIVE	Device that rotates the disk for storage and retrieval of data. DOS assigns a letter to each disk drive (A, B, C, or D) to allow the computer to identify which drive to access.

FILE	A collection of information that is stored on a disk under a certain name.
FILENAME	Name assigned to a file; can be 1 to 8 characters long (alphabetic or numeric) with the optional 3-character extension. The following characters cannot be contained in a filename: . " \ / [ ] : | < > = + ; ,
FIXED DISK	Disk is fixed or permanent in the computer and accessed through C and D drives. A fixed disk cannot be removed from the computer like floppy disks. Hard disks are large capacity storage devices that have been coated with magnetic material.
FLOPPY DISK	Same as diskette. Used for secondary storage and can be damaged.
FUNCTION KEYS	Programmable keys that perform different operations.
HARDWARE	Computer and peripherals.
INPUT	Process of putting data into the computer from storage or the keyboard.
KEYBOARD	Commands and information are entered into the computer by typing on the keyboard. The keyboard is similar to a typewriter.
KILOBYTE	A kilobyte is 1,024 bytes and abbreviated as K or KB.
MEGABYTE	Approximately one million bytes.
MEMORY	Stores the information that will be processed by the Central Processing Unit.
MENU	List of options displayed on the computer.
PARAMETER	Additional information required for a command.
PRINTER	Device which receives data from the computer and prints it on paper.
PERIPHERAL	Any device connected to the computer that inputs or outputs data—printer, mouse, keyboard.
PROCESSING	Work the computer performs on INPUT to produce OUTPUT.
PROGRAM	Set of instructions telling the computer how to perform a task.

RAM	Acronym for RANDOM ACCESS MEMORY which refers to the memory used in the computer for storing and retrieving data while working on the computer. Information can be used and accessed quickly when stored in RAM, but is lost when the computer is turned off.
ROM	Acronym for READ ONLY MEMORY. Refers to the permanent memory built into the computer by the manufacturer. ROM is used by the computer when it is first turned on. When the computer is turned off, ROM is not lost.
SOFTWARE	Computer programs, such as word processing, spreadsheet and database programs.
SYSTEM BOOT	The process of starting the computer with the system off or on—using a cold or warm boot.
UPDATE	Process of revising a file to make the information in the file current.
USER	Any person using a computer.
WARM BOOT	Restarting a computer that is powered on. (Hold down CTRL and ALT and press DEL key.)
WRITE PROTECT	Process of covering the write-protect notch on a 5¼" diskette or opening the write-protect button on a 3½" diskette to ensure against the accidental erasure of the information on a diskette.

DOS COMMANDS

The following are the DOS commands used in Beginning DOS. The Advance DOS LAPS will introduce more DOS commands.

CD (CHDIR)	Change directory.
CLS	Clear screen.
COMP	Compare two files.
COPY	Copy files.
COPYCON	Copy information from keyboard to file on a disk.
DATE	Set or change date.
DEL	Delete files.
DIR	Display directory.
DIR/P	Display directory a page at a time.
DIR/W	Display directory across the screen.
DISKCOMP	Compare diskettes.
DISKCOPY	Copy disk exactly. Removes any files on disk.
ECHO OFF	Suppress display of DOS commands as they are executed.
ERASE	Erase files.
FORMAT	Prepare a disk to store files.
MD (MKDIR)	Make directory.
PAUSE	Temporarily suspend execution of batch file and display message.
PATH	Set a path to search for a file.
PROMPT	Display disk drive ready for use.
REM	Display remarks during execution of batch file.
RD (RMDIR)	Remove directory.
TIME	Set or change time.
TREE	Display directory and filename.
TYPE	Show file contents.

Name _____

DOS ASSIGNMENT SHEET

LAP	Title	Date	Start Time	End Time	Time Spent
LAP 1	SYSTEM COMPONENTS, DOS				
LAP 2	KEYBOARD, SYSTEM BOOT DEF				
LAP 3	FILE NAMES, DIR COMMAND				
LAP 4	FORMAT DISKETTES				
LAP 5	COPY/COMPARE/ERASE FILES				
LAP 6	DISK ORGANIZATION/SET UP				
LAP 7	REMOVE SUBDIRECTORIES				
LAP 8	PATHS				
LAP 9	BATCH FILES				

Comments _____

LAP 1

SYSTEM COMPONENTS/DISK OPERATING SYSTEM

OBJECTIVES:

- Locate system components
- Understand Disk Operating System
- Load Disk Operating System
- Execute a cold boot
- Enter time and date
- Turn off computer

REQUIRED MATERIALS:

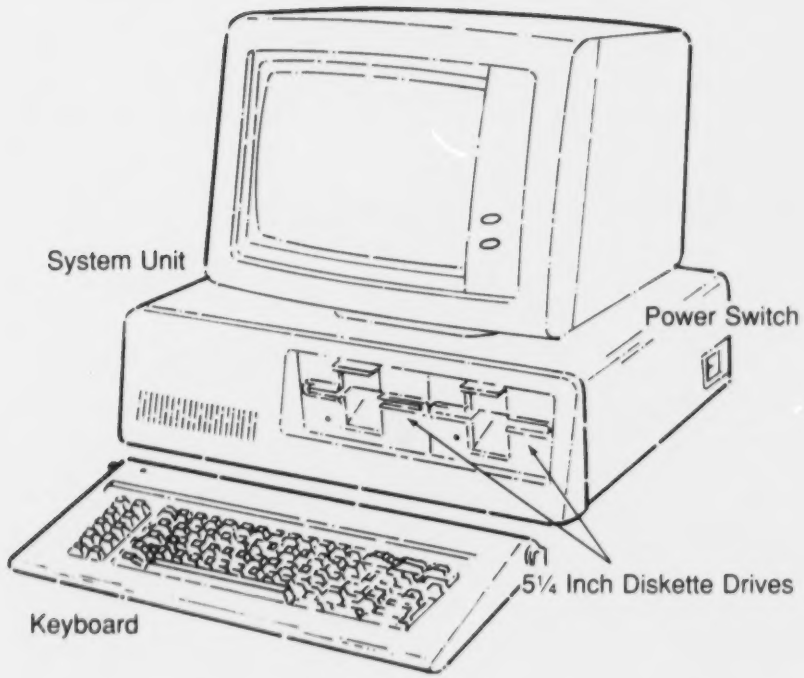
- DOS disk
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk

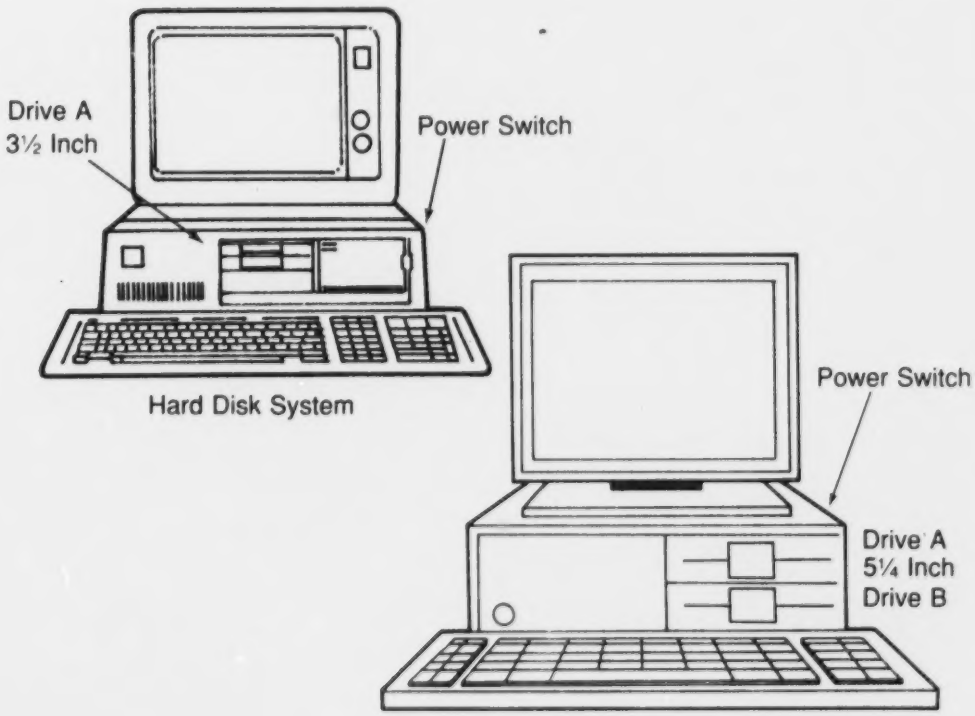
SYSTEM COMPONENTS

READ: The components of an IBM PC or compatible computer system include a system unit (Central Processing Unit), video monitor, disk drives, keyboard, printer.

SYSTEM UNIT

READ: The system unit is called the Central Processing Unit (CPU). This unit contains the computer memory, central processor and controller of the other components of the system. The on/off switch for the computer will be found on the right side of this unit.


System Unit
Power Switch
5¼ Inch Diskette Drives
Keyboard


Drive A
3½ Inch
Power Switch
Hard Disk System
Power Switch
Drive A
5¼ Inch
Drive B

DO: **Locate the system unit on your computer. It is located under the screen and usually contains the disk drives. Find the power (on/off) switch for the computer on the right side.**

VIDEO MONITOR

READ: The video monitor looks like a small television screen. As you press keys on the keyboard, the words appear on the monitor. As you delete, insert or move text, the revisions can be seen immediately. Many monitors have a separate power switch.

DO: **Determine if the monitor you are using has a separate power switch. The switch may be located on the upper right side of the monitor. Push the switch; a light should come on beside the power switch to indicate the monitor is on.**

DISK DRIVES

READ: The disk drives are the mechanical and electrical devices which read or write on a diskette. Computer systems vary as to the types of disk drives they have.

If the system has two external floppy disk drives, the drive on the left side or top is called Drive A; the drive on the right or bottom is called Drive B. If the system only has one external disk drive, the drive is called Drive A. Disk drives may be a part of the system unit or a separate unit.

A hard disk is an internal disk drive. This disk drive may be partitioned into one Disk Drive called Drive C or two drives called C and D.

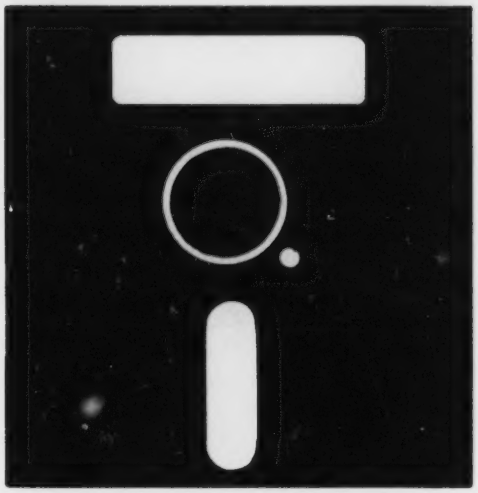
DO: **Determine the types of disk drives on your system. See your instructor if you need help.**

REMEMBER: Drive A - located on left side, top or only drive.

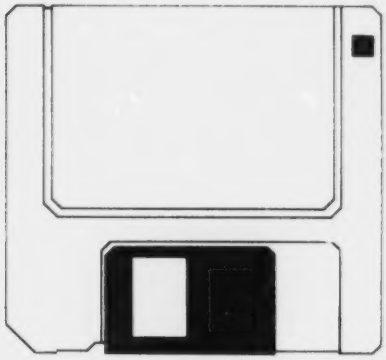
Drive B - located on right side or bottom.

Drive C or D - internal hard disk drive

FLOPPY DISKETTES



5¼" diskette



3½" diskette

READ: The IBM or compatible computer uses either 5¼" or 3½" floppy diskettes to store programs or data.

The 5¼" diskette needs special care. When using floppy diskettes, you should be aware of the following:

1. Don't touch the read/write window where the computer's drive heads pass information.
2. Do not expose diskettes to smoke, sunlight, excessive heat, dust, or anything magnetic.
3. Do not attach paper clips or clean diskettes.
4. Use only a soft, felt tip pen when writing on identification labels.

Diskettes can be write-protected. On 5¼" diskettes, when the notch on the right side is covered by an adhesive tape, data cannot be recorded on the diskette. On 3½" diskettes, opening the small rectangle on lower left of the diskette prevents recording on the diskette.

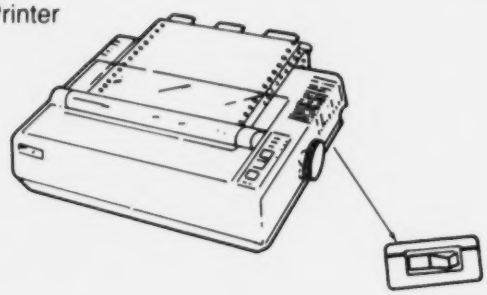
DO: **Examine your DOS diskette. Find the write-protect notch or rectangle. If your diskette is not write-protected, cover the notch or open the rectangle to write-protect your diskette.**

PRINTER

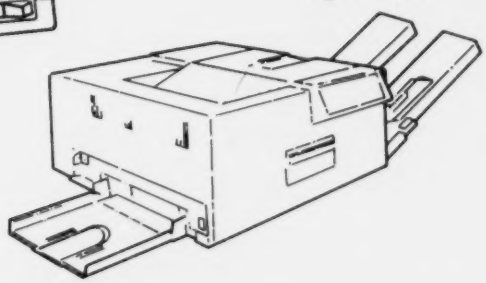
READ: The printer is the primary output device which prints hard copy of data generated by the computer. The printer is connected to the computer through a parallel or serial port on the back of the system unit. The printer is connected to a power source through the power cord that accompanies the printer.

LOOK: The drawings below show a few of the different models of printers on the market.

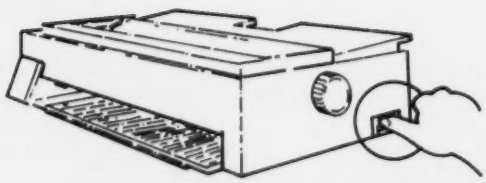
Graphics Printer



Page Printer

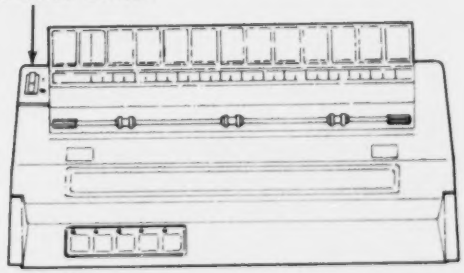


Proprinter



Quietwriter

Power Switch



DO:

1. **Use the illustration to locate the printer power switch (on/off).**
2. **Identify the type/model printer you are using.**
3. **Power the switch to the ON position; then power the printer off.**

UNDERSTANDING DOS

READ: The Disk Operating System (DOS) is a software program that manages and controls the activities of the computer. Without the operating system, the computer is virtually useless. Before you begin to use the computer for applications such as accounting, word processing or file management, you must first become familiar with the programs that allow the computer to function.

The disk operating system used most often with the IBM-PC is called PC-DOS, or more simply DOS, an acronym standing for Disk Operating System. Several other operating systems are available for the IBM-PC, including CP/M-86, the p-System, and various forms of UNIX. However, PC-DOS is provided by the manufacturer and is by far the dominant operating system. This unit will focus on DOS version 3.0. However, the information presented in this lesson will apply to most versions of DOS, beginning with 2.0. If you try to use these LAPS with DOS 4.0, you will have difficulty—the prompts will be different.

LOADING DOS IN COMPUTER MEMORY

READ: With most applications programs, you are not aware that DOS is residing in computer memory and active. We say that DOS is transparent. Most applications programs try to make DOS as transparent as possible. However, it is to your advantage to know how to use DOS in order to maximize control over your microcomputer.

When the computer loads a program, it copies the program from a diskette into computer memory, sometimes called Random Access Memory (RAM). System files are transferred from the program diskette into RAM, and the computer is ready for additional instructions.

The following series of steps will take place in the computer without your assistance, because DOS is installed on your diskette. The process of loading DOS with your computer off is called a COLD BOOT.

DO: **Execute a cold boot by performing the following steps:**

1. **Place a DOS diskette in Drive A.**

2. **Power on the computer. (The switch should be at the right toward the back of the computer).**

LOOK: You will see the action of the Power on Self Test (Post) as the **numbers roll in the upper left of screen. The drive indicator light on Drive A** signifies that Drive A is active.

READ: If there are no error messages, the computer passes the diagnostic check. The program in READ ONLY MEMORY (ROM) loads three essential files—COMMAND.COM and two hidden files named IBMBIO.COM and IBMDOS.COM.

TELLING DOS THE DATE AND TIME

READ: When DOS is loaded and ready, you will see a message similar to this on the screen:

```
Current date is Tue 1-01-1991
Enter new date (mm-dd-yy):
```

DO: **Enter new date (mm-dd-yy)**: _<--- (The cursor identifies the placement of the first number.)

For example, suppose the current date is Jan 1, 1991.

1. **Use the top row of the typewriter keyboard to key: 1-1-91** or **01-1-91** or **1/01/91** or **01/01/91**.

2. **Press [Enter] located right of homerow keys.**

LOOK: The screen shows:

```
Current date is Tue 1-01-1991
Enter new date (mm-dd-yy):
```

READ: Time is entered using hours, minutes. Hours range from 1 a.m., which in military time is 01:00, to 12 noon which is 12:00. After 12 noon, add the hour to 12; 1 p.m. is 13:00; 2 p.m. is 14:00, etc. until 12 midnight, which is 24:00.

DO: 1. **Key the current time (hour:minutes).**

(Example: 09: 10)

2. **Press [Enter].**

DOS PROMPT

READ: The DOS prompt is composed of two characters. The first character indicates the disk drive the computer will use unless instructed otherwise. The second character is >. If A> is displayed on your monitor, DOS will search the disk in Drive A to find the commands or file names that you enter. If C> is displayed, DOS will search the hard disk to find the commands or file names you enter.

LOOK: **The copyright message for your version of DOS will appear on the screen followed by the DOS prompt:**

```
A>
```

READ: The A> is the DOS prompt. It tells you that the computer is ready to receive commands or be turned off.

POWERING OFF THE COMPUTER

DO:

1. **Remove the DOS diskette from the disk drive and return it to the envelope.**
2. **Power off your computer and monitor if it has a separate switch.**
3. **Continue as instructed.**

LAP 2

KEYBOARD/SYSTEM BOOT/ DEFAULT DRIVE

OBJECTIVES:

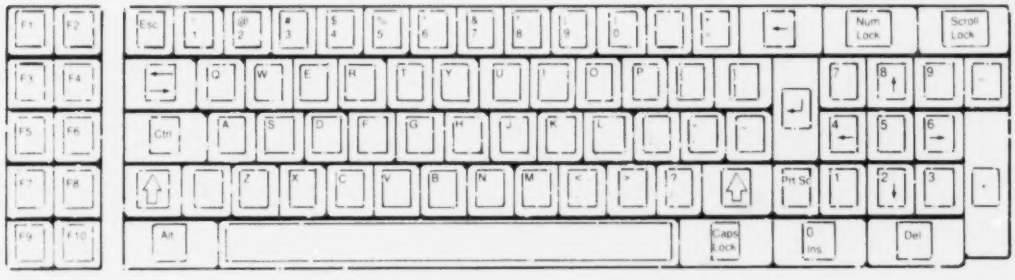
- Locate special function keys on keyboard
- Execute warm boot
- Change the default drive

REQUIRED MATERIALS:

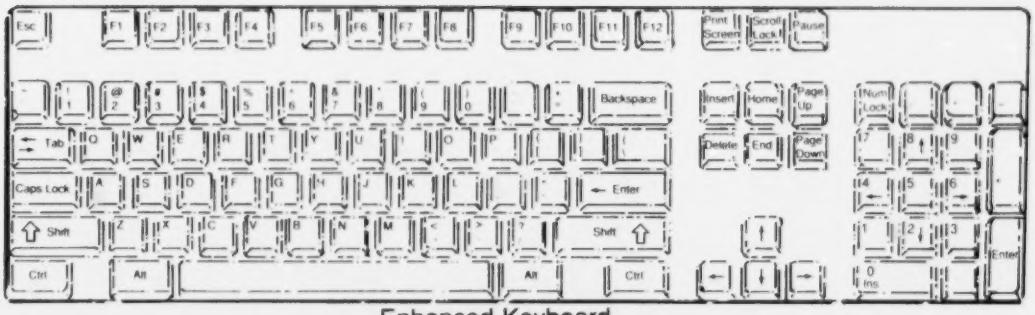
- DOS diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Printer
- Paper and pen or pencil

KEYBOARD OPERATIONS

READ: The IBM and compatible computer has a keyboard comparable to a typewriter keyboard. Manufacturers have varied the designs in the locations of the special and function keys. Most keyboard designs are similar to the standard or enhanced keyboards as illustrated.



Standard Keyboard



Enhanced Keyboard

KEYBOARD LAYOUT

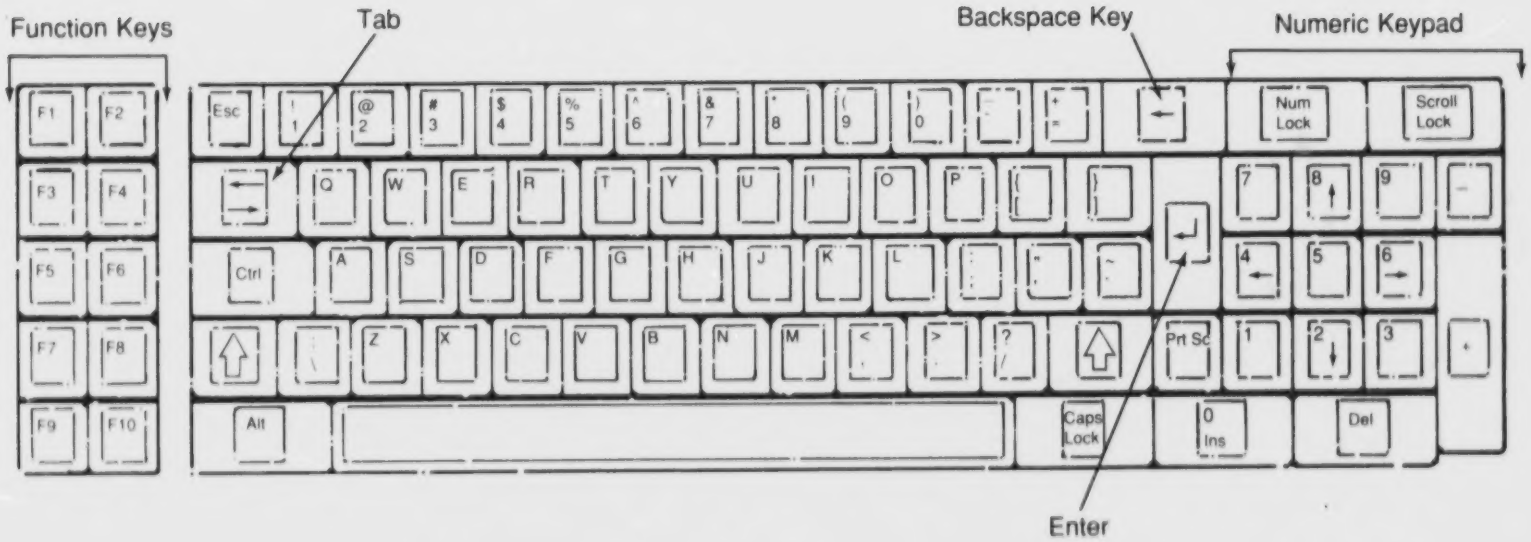
READ: The keyboard can be divided into three sections:

DO: **Locate these sections on the computer keyboard:**

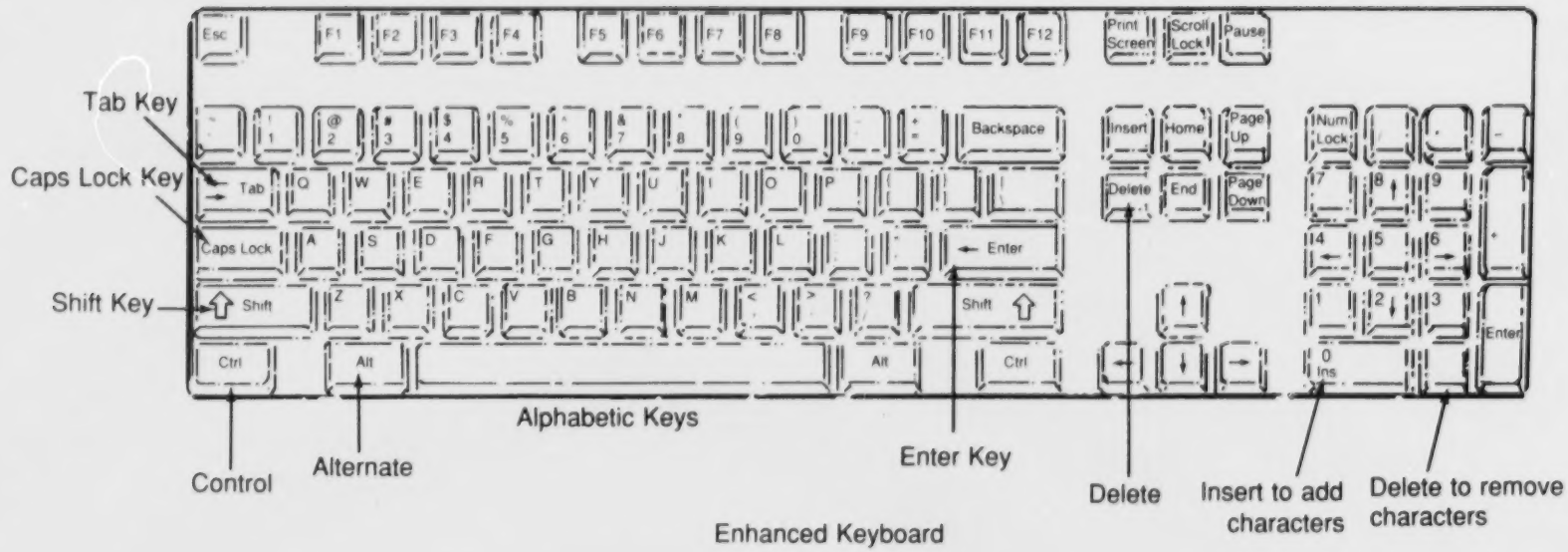
1. **10 or 12 function keys located on the extreme left-hand side or top of the keyboard.**
2. **the regular typewriter keys.**
3. **a 10-key pad on the extreme right-hand side of the keyboard.**

FUNCTION KEYS

READ: The Function keys (F1,F2,F3,F4,...F12) are programmable keys, meaning that they may be programmed to serve different functions. The function keys on the standard keyboard are located on the left of the typewriter keys; on the enhanced keyboard, function keys are located at the top of the keyboard. Thus, the keys work differently with each program. You should refer to the user's guide for each application in order to determine how the function keys are defined and are to be used with that particular program.



Standard Keyboard



Enhanced Keyboard

DO: **Locate the function keys on your computer keyboard.**

TYPEWRITER KEYS

READ: A standard keyboard with special keys such as the [Esc], [Tab], [Shift], [Ctrl], and [Alt] keys are found on the left-hand side of the keyboard. The [Backspace], [Enter], [PrintScrn], and [Shift] keys are found on the right-hand side of the keyboard.

DO: **Locate the following special keys on your computer keyboard:** (Some of these keys are toggle keys—when pressed, it is turned on; when pressed again it is turned off.

[Alt] Must be used with another key to perform a command or function.

[Backspace] **[<--]** Erases the character to the left of the cursor; the cursor moves to the left one space.

[Caps Lock] Locks all letter keys into upper case until pressed again. (This is a toggle key.)

[Ctrl] Must be used with another key to perform a command.

[Delete] Erases character above cursor, leaving a blank space.

[Esc] Press to get out of a program or void a command.

[Enter] Same as a carriage return. Moves cursor to the beginning of the next line.

[Insert] Toggle key that inserts typed characters at cursor when turned on. When toggled off, (**typeover** printed in lower left of screen) types over the character at the cursor.

[Num Lock] Toggle key that turns the numeric keypad on or off. On the enhanced keyboard, a light in the upper right hand corner of the keyboard indicates that it is on. When used with the Ctrl key, pauses program execution or screen display. (Located above the numeric keypad.)

NOTE: When the numeric keypad is turned off, the symbol below the number on the keypad will be executed.

[Print Scrn] Screen display will be printed. With the [Ctrl] key, turns on the printer echo. With the [Shift] key, prints the screen.

[Scroll Lock] Stops program execution or display on the screen.

[Shift] Changes lower case letters and special characters to upper case; activates the numeric function of the numeric keypad. (Located on lower left and right of keyboard.)

[Tab] Moves the cursor the number of spaces set or defaulted on the tab line.

NUMERIC KEYPAD

READ: The numeric keypad is located on the right side of the keyboard. The [Num Lock] located above the numbers must be on to enter numbers. If the [Num Lock] key is off, the numbers become arrows which move the cursor around the keyboard. The [Num Lock] key is a toggle key. Press the key once and it is on; press it again and the [Num Lock] key is off.

DO: **Locate the numeric keypad. Press the [Num Lock] key. If the [Num Lock] key was turned on when pressed, the [Num Lock] light above the [Num Lock] key will light up. With the [Num Lock] Light on, press the [Num Lock] key. The light should go off.**

COMBINATION KEYS

READ: Some functions are performed by combining more than one special key such as [Ctrl Break] to stop execution of a command or [Ctrl Alt Del] to reset your computer. Normally the combinations require holding down special keys on the left side of the keyboard with the left hand, while pressing the last key (usually found on the right side of the keyboard) with the right hand.

DO: **Locate and place your fingers in position (do not press keys) to execute [Ctrl Break] and [Ctrl Alt Del]. (You will be using these commands later in these LAPS.)**

SYSTEM BOOT

READ: Starting the system is called booting up the computer. The process of starting the computer with all system components powered off is known as a COLD BOOT.

DO: **Perform a cold boot:**

1. **Insert the DOS diskette with the label side up in drive A and close the drive door.**

2. **Switch on the printer, the video monitor (if it has a separate power switch), and then the computer.**

3. **Wait a moment while the computer checks itself out by the POST operation.**

READ: The system may also be reset without having to power off the computer. The following steps demonstrate this process known as a WARM BOOT. The name WARM BOOT refers to restarting a computer that is powered on.

DO: **Execute a warm boot:**

1. **Insert the DOS diskette in drive A.**

2. **While holding down [Ctrl] [Alt], press [Del] and release.**

READ: You will see the disk drive light come on while DOS is being loaded, and you may hear some clicks and whirs.

When DOS is loaded and ready, you will see a message similar to this on the screen:

```
Current date is Tue 1-01-1991
Enter new date (mm-dd-yy):
```

LOOK: Enter new date (mm-dd-yy): _<--- (The cursor identifies the placement of the first number.)

DO: **For example, suppose the current date is Jan 1, 1991.**

1. **Key: 1-1-91** or **01-1-91** or **1/01/91** or **01/01/91**.

2. **Press [Enter]**.

LOOK: The screen shows:

```
Current date is Tue 1-01-1991
Enter new date 1-1-91
Current time is 0:01.05.58
Enter new time
```

Your time may vary.

READ: Time is entered using hours, minutes. Hours range from 1 a.m., which in military time is 01:00, to 12 noon which is 12:00. After 12 noon, add the hour to 12; 1 p.m. is 13:00; 2 p.m. is 14:00, etc. until 12 midnight which is 24:00.

DO:

1. **Key the current time (hour:minutes).**

   (Example: 09:10)

2. **Press [Enter].**

DOS PROMPT

LOOK: **The copyright message for your version of DOS will appear on the screen followed by the DOS prompt:**

```
A>
```

READ: The A> is the DOS prompt. It tells you that the computer is ready to receive commands.

SPECIFYING THE DEFAULT DRIVE

READ: The A in the prompt designates the default drive. The default drive is the disk drive that DOS searches to find any commands or file names that you enter. You can change the default drive in the prompt by entering the new drive designation letter followed by a colon.

NOTE: Default drive letter is dependent upon your system configuration. See instructor.

DO: **Key: C: [Enter]**

LOOK:

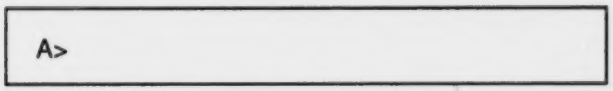
```
C>
```

The prompt, C>, should appear on the screen indicating it is the default drive. Now C> is the drive DOS searches to find any commands or filenames you enter.

DO: **Key: A: [Enter]**

READ: This returns the default to Drive A.

LOOK:



READ: If you do not specify a drive when you enter a command or file name, the system automatically searches the disk located in the default drive.

DO:

1. **Complete the questions on page 2-10 and turn in to your instructor.**
2. **Continue as instructed.**

POWERING OFF THE COMPUTER

DO:

1. **Remove the DOS diskette from the disk drive and return it to the envelope.**
2. **Power off the computer and the video monitor if it has a separate switch.**

LAP 2 QUESTIONS

1. What are the three divisions of the keyboard?

   a. _____

   b. _____

   c. _____

2. If you press a _____ key once, it is on; if you press it again, it is off.

3. Holding down the [Ctrl][Alt] keys and pressing the [Del] key is called a _____ _____.

4. The operation taking place while the computer checks itself out is called the _____ operation.

5. Starting a computer that has been powered off is called a _____ _____.

6. After performing a system boot, the DOS prompt, A>, appears telling you that the computer is ready to _____ ____ _____.

7. When DOS is loaded and ready, a message asking for the _____ appears on the screen.

8. Do you power off the computer before or after you remove the diskette from the disk drive? _____

LAP 3

FILE NAMES/DIRECTORY COMMAND/ INTERNAL AND EXTERNAL FILES

OBJECTIVES:

- Explain file names
- Describe file organization
- Use the directory command
- Understand internal and external commands

REQUIRED MATERIALS:

- DOS diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Paper and pen or pencil
- Printer

DO:

1. **Insert the DOS diskette in Drive A.**

2. **Perform system boot.**

FILES AND FILE NAMES

READ: Since large volumes of data can be stored on a diskette or hard disk, it is necessary to store the related data together in files. A disk file is similar to a file folder in a file cabinet. As in a file cabinet, each file must have a name, so it can be found easily.

Each file has a name consisting of 8 or fewer characters plus an optional period and a 3-letter extension. You can use the following letters, numbers and symbols:

Letters A through Z
Numbers 0 through 9
$ @ ! % () - {} ^

EXAMPLE OF FILE NAME: **NEWFILE.EXT**

IMPORTANT: Do not place a space in the file name.

Prior versions of DOS allowed the characters /,< > and \ to be used in a file name. Since these characters have special meaning beginning with DOS Version 2.10, you can no longer use these characters in file names.

FILE SPECIFICATIONS

READ: DOS must know where to search for a file. You must tell DOS two things:

1. the drive that contains the diskette or the hard drive that the file is on.

2. the name of the file, and the extension.

The letter of the drive followed by a colon is called the drive designator. The drive designator, the file name, and the extension are called a file specification.

DIRECTORY COMMAND

READ: The directory command, DIR, is used to find out what files are on a disk. To find out what files are on the disk in A drive:

DO: **Key: DIR [Enter]**

LOOK: Watch the screen. The first message to appear displays the volume label of the disk (if it has one), followed by the name of the directory that is being listed, and then the files in that directory are listed.

READ: The screen displays the filename, the extension, the size of the file (in bytes), and the date and time that the data was last stored in the file. One line is displayed for each file on the disk. Although the extension is listed in a separate column from the file name on the directory display, it should always be stated as part of the file name when using DOS commands. For example: filename.ext.

READ: The DOS directory displays four pieces of information about each file in the directory:

1. The file's name and optional 3-letter extension.

2. The file's size in bytes.

3. The file's creation date or the date the file was last changed.

4. The file's creation time or the time the file was last changed.

LOOK: When all the files have been displayed, the DOS prompt

```
A>
```

appears on the screen.

READ: The following key combinations will assist you in examining large directories:

DO:

1. **Key: DIR [Enter]. Files will scroll by quickly. Immediately press [Pause] to stop the scrolling on the screen while the directory is being displayed.**

2. **Key: DIR [Enter] to see the directory. Immediately press [Ctrl Break] to cancel the command.**

3. **Key: DIR/P [Enter] to see the directory a screen at a time. Press [Spacebar] to see the next screen.**

4. **Key: DIR/W to list a horizontal or wide display of the directory.**

5. **Hold down the [Ctrl] and press [PrintScrn] to use the printer echo feature to list your directory on the printer.**

6. **Hold down the [Ctrl] and press [PrintScrn] again to stop the printer echo.**

INTERNAL AND EXTERNAL COMMANDS

READ: DOS commands are either internal or external. When DOS is booted, internal commands are loaded into Random Access Memory (RAM) and are available for use at any time. Random Access Memory is in the primary storage area and can be accessed faster. Internal commands are accessible after removing the DOS diskette.

Some DOS commands are not used as often and are not loaded into RAM when booting DOS. These commands reside on the DOS DISK (floppy or hard disk) and must be loaded from the disk each time they are used. This keeps more RAM free for user programs and data. These commands are known as external commands.

READ: External commands can only be used if the DOS disk is in the disk drive or on the hard disk.

The following is a list of the most common DOS commands grouped as internal or external commands:

INTERNAL COMMANDS	EXTERNAL COMMANDS
(No DOS diskette needed if DOS is loaded.)	(DOS diskette needed unless DOS is loaded on hard disk.)

BREAK
CHDIR
CLS
COPY
DIR
ERASE
MKDIR
PATH
PROMPT
RENAME
RMDIR
TIME
TYPE
VER

ASSIGN
ATTRIB
BACKUP
CHKDSK
COMMAND
COMP
DISKCOMP
DISKCOPY
MODE
FDISK
FIND
FORMAT
GRAPHICS

PRINT
RECOVER
RESTORE
SELECT
SHARE
SORT
SUBST
TREE

The directory for DOS will display the external commands.

DO: Insert your DOS Diskette.

1. Key **DIR/P [Enter]**
2. Hold down the **[Shift]** key and press **[PrintScrn]** to print the directory on the screen.
3. Press **[Spacebar]** to see more of the directory.
4. Hold down the **[Shift]** key and press **[PrintScrn]** to print more of the directory on the screen.
5. After the complete DOS Directory has been printed, locate and place a check mark before each of the external commands shown and turn in to your instructor.
6. Complete the questions on page 3-6 and turn in to your instructor.
7. Continue as instructed.

POWERING OFF THE COMPUTER

DO:

1. Remove the DOS diskette from the disk drive and return it to the envelope.
2. Power off the printer, monitor and computer.

QUESTIONS LAP 3

1. A file name may have up to _____ characters.
2. A file extension may have up to _____ characters.
3. A _____ is placed between file name and extension.
4. Can spaces be used in a file name? _____
5. The drive designator, the file name and the extension are called a

   _____.
6. To see the files on a disk, use the _____ command.
7. When entering the DIR command, the first message to appear on the screen is the volume label, followed by the _____.
8. Information for each file is displayed on the screen: file name,

   _____.
9. To see a horizontal or wide display, enter _____.
10. Are internal commands accessible after removing the DOS disk? _____

```
A>dir/p

 Volume in drive A has no label
 Directory of  A:\

ANSI     SYS      1651   3-07-85   1:43p
ASSIGN   COM      1509   3-07-85   1:43p
ATTRIB   EXE     15091   3-07-85   1:43p
BACKUP   COM      5577   3-07-85   1:43p
BASIC    COM     17792   3-07-85   1:43p
BASICA   COM     27520   3-07-85   1:43p
CHKDSK   COM      9435   3-07-85   1:43p
COMMAND  COM     23210   3-07-85   1:43p
COMP     COM      3664   3-07-85   1:43p
DISKCOMP COM      4073   3-07-85   1:43p
DISKCOPY COM      4329   3-07-85   1:43p
EDLIN    COM      7261   3-07-85   1:43p
FDISK    COM      8173   3-07-85   1:43p
FIND     EXE      6403   3-07-85   1:43p
FORMAT   COM      9398   3-07-85   1:43p
GRAFTABL COM      1169   3-07-85   1:43p
GRAPHICS COM      3111   3-07-85   1:43p
JOIN     EXE     15971   3-07-85   1:43p
KEYBFR   COM      2289   3-07-85   1:43p
KEYBGR   COM      2234   3-07-85   1:43p
KEYBIT   COM      2177   3-07-85   1:43p
KEYBSP   COM      2267   3-07-85   1:43p
KEYBUK   COM      2164   3-07-85   1:43p
Strike a key when ready . . .

GRAFTABL COM      1169   3-07-85   1:43p
GRAPHICS COM      3111   3-07-85   1:43p
JOIN     EXE     15971   3-07-85   1:43p
KEYBFR   COM      2289   3-07-85   1:43p
KEYBGR   COM      2234   3-07-85   1:43p
KEYBIT   COM      2177   3-07-85   1:43p
KEYBSP   COM      2267   3-07-85   1:43p
KEYBUK   COM      2164   3-07-85   1:43p
Strike a key when ready . . .
LABEL    COM      1826   3-07-85   1:43p
MODE     COM      5295   3-07-85   1:43p
MORE     COM       282   3-07-85   1:43p
PRINT    COM      8291   3-07-85   1:43p
RECOVER  COM      4050   3-07-85   1:43p
RESTORE  COM      5410   3-07-85   1:43p
SELECT   COM      2084   3-07-85   1:43p
SHARE    EXE      8304   3-07-85   1:43p
SORT     EXE      1664   3-07-85   1:43p
SUBST    EXE     16611   3-07-85   1:43p
SYS      COM      3727   3-07-85   1:43p
TREE     COM      2831   3-07-85   1:43p
VDISK    SYS      3307   3-07-85   1:43p
       36 File(s)     61440 bytes free

A>
```

```
SELECT   COM      2084   3-07-85   1:43p
SHARE    EXE      8304   3-07-85   1:43p
SORT     EXE      1664   3-07-85   1:43p
SUBST    EXE     16611   3-07-85   1:43p
SYS      COM      3727   3-07-85   1:43p
TREE     COM      2831   3-07-85   1:43p
VDISK    SYS      3307   3-07-85   1:43p
       36 File(s)     61440 bytes free

A>dir/w

 Volume in drive A has no label
 Directory of  A:\

ANSI     SYS    ASSIGN   COM    ATTRIB   EXE    BACKUP   COM    BASIC    COM
BASICA   COM    CHKDSK   COM    COMMAND  COM    COMP     COM    DISKCOMP COM
DISKCOPY COM    EDLIN    COM    FDISK    COM    FIND     EXE    FORMAT   COM
GRAFTABL COM    GRAPHICS COM    JOIN     EXE    KEYBFR   COM    KEYBGR   COM
KEYBIT   COM    KEYBSP   COM    KEYBUK   COM    LABEL    COM    MODE     COM
MORE     COM    PRINT    COM    RECOVER  COM    RESTORE  COM    SELECT   COM
SHARE    EXE    SORT     EXE    SUBST    EXE    SYS      COM    TREE     COM
VDISK    SYS
       36 File(s)     61440 bytes free

A>
dir

 Volume in drive A has no label
 Directory of  A:\

ANSI     SYS      1651   3-07-85   1:43p
ASSIGN   COM      1509   3-07-85   1:43p
ATTRIB   EXE     15091   3-07-85   1:43p
BACKUP   COM      5577   3-07-85   1:43p
BASIC    COM     17792   3-07-85   1:43p
BASICA   COM     27520   3-07-85   1:43p
CHKDSK   COM      9435   3-07-85   1:43p
COMMAND  COM     23210   3-07-85   1:43p
COMP     COM      3664   3-07-85   1:43p
DISKCOMP COM      4073   3-07-85   1:43p
DISKCOPY COM      4329   3-07-85   1:43p
EDLIN    COM      7261   3-07-85   1:43p
FDISK    COM      8173   3-07-85   1:43p
FIND     EXE      6403   3-07-85   1:43p
FORMAT   COM      9398   3-07-85   1:43p
GRAFTABL COM      1169   3-07-85   1:43p
GRAPHICS COM      3111   3-07-85   1:43p
JOIN     EXE     15971   3-07-85   1:43p
KEYBFR   COM      2289   3-07-85   1:43p
KEYBGR   COM      2234   3-07-85   1:43p
KEYBIT   COM      2177   3-07-85   1:43p
KEYBSP   COM      2267   3-07-85   1:43p
KEYBUK   COM      2164   3-07-85   1:43p
LABEL    COM      1826   3-07-85   1:43p
MODE     COM      5295   3-07-85   1:43p
MORE     COM       282   3-07-85   1:43p
PRINT    COM      8291   3-07-85   1:43p
RECOVER  COM      4050   3-07-85   1:43p
RESTORE  COM      5410   3-07-85   1:43p
SELECT   COM      2084   3-07-85   1:43p
SHARE    EXE      8304   3-07-85   1:43p
SORT     EXE      1664   3-07-85   1:43p
SUBST    EXE     16611   3-07-85   1:43p
SYS      COM      3727   3-07-85   1:43p
```

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LAP 4

FORMAT DISKETTE

OBJECTIVES:

- Format a diskette
- Format a system diskette

REQUIRED MATERIALS:

- DOS diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Blank diskette
- Paper and pen or pencil

PREPARING A DISKETTE FOR USE

DO:

1. **Insert DOS diskette in drive A:**
2. **Perform a cold boot.**

```
A>
```

appears on the screen.

READ: DOS uses the FORMAT command to prepare a new diskette to store information. On a 5¼" floppy diskette, the format command checks the diskette for bad spots, organizes the diskette into tracks, and divides each track into 9 sectors. If your computer uses a 3½" diskette, the format command organizes the diskette into 80 tracks and divides each track into 9 sectors. This means a 3½" diskette will hold twice as much data as a 5¼" diskette.

READ: There are two types of diskette drives, high and low density. A high density 3½" drive is usually noted by a 1.44 on the disk eject button. Your instructor will tell you which type of drive you have.

READ: When using a high density disk drive, there are two options that must be added to your FORMAT command to use the formatted diskette on a low density disk drive. For a high density 3½" disk drive, these options are /N:9 /T:80.

For example: FORMAT A: /N:9 /T:80

Your instructor will tell you the appropriate options.

DO: **Key: FORMAT A:** [Enter] **or appropriate options.**

READ: A: is a parameter. Parameters are entered after the command name and affect the way the command is performed. Parameters are used with DOS commands to tell the computer where the command should be executed or to control specific actions of the command. You must place a space between the command and the parameter.

LOOK: This prompt appears:

```
Insert new diskette for drive A:
and strike ENTER when ready.
```

DO:

1. **Remove DOS diskette from drive A and insert your blank diskette in drive A.**

2. **Press [Enter]**

LOOK: You will see a Formatting .....message. After a few minutes, you will see:

```
Formatting....Format complete

xxxxxx bytes total diskette space
xxxxxx bytes available on diskette

Format another (Y/N)? _
```

DO: 2. **Key: n [Enter]**

LOOK: Now you will see the DOS prompt:

```
A>
```

DO: **You can remove your newly formatted diskette.**

NOTE: The diskette is now ready to be used as a data diskette to store data.

FORMATTING A SYSTEM DISKETTE

READ: If you are preparing a new diskette to become a "bootable" diskette, that is, one with a copy of the DOS system files, then you would use the /S option:

For example: FORMAT A:/S

NOTE: A bootable diskette is a self-starting diskette and does not require a DOS diskette to start the computer. It has a copy of the three DOS system files on it and will, therefore, "boot" the computer. The /S will transfer the system files during the format.

DO:

1. **Insert DOS diskette in drive A:.**
2. **Key: FORMAT A:/S [Enter]**

LOOK: This prompt appears:

```
Insert new diskette for drive A:
and strike ENTER when ready
```

DO:

1. **Remove DOS diskette from drive A and insert your data diskette in drive A.**
2. **Press [Enter]**

LOOK: You will see a formatting message with the numbers after Head and Cylinder counting up. After a few minutes, you will see the prompt:

```
Formatting.....Format complete

System transferred

xxxxxx bytes total diskette space
xxxxxx bytes used by system
xxxxxx bytes available on diskette

Format another (Y/N)? _
```

DO: **Key: n [Enter]**

LOOK: Now you will see the DOS prompt

```
A>
```

DO: **Key: DIR**

LOOK: COMMAND.COM is displayed on your data disk.

READ: The diskette is now ready to be used as a bootable diskette, and can be used to start your system.

DO:

1. **Perform a warm boot with the newly formatted diskette. This diskette has been prepared to store data and will be called your data diskette.**
2. **Complete the questions on the next page. Turn in the completed questions with answers to your instructor.**
3. **Continue as instructed.**

POWERING OFF THE COMPUTER

DO:

1. **Remove the newly formatted bootable diskette from the disk drive and return it to the envelope.**
2. **Power off the computer and video monitor if it has a separate switch.**

LAP 4 QUESTIONS

1. _____ is the command to format a disk in A drive.

2. Additional information required for a command is called a _____.

3. A: after a command is a _____.

4. Insert a _____ between a command and a parameter. If there is more than one parameter, place a space between each parameter.

5. To prepare a "bootable" diskette in A drive, use the _____ command.

6. _____ is the command for formatting a high density, 3½" disk drive.

7. After formatting is complete, the screen will display the _____ of the default drive.

8. When you use the FORMAT A:/S command, you can use the diskette to

   _____.

9. A diskette must be _____ to be used as a storage diskette.

LAP 4 QUESTIONS/ANSWERS

1. FORMAT A: is the command to format a disk in A drive.
2. Additional information required for a command is called a parameter.
3. A: after a command is a parameter.
4. Insert a space between a command and parameter. If there is more than one parameter, place a space between each parameter.
5. To prepare a "bootable" diskette in A drive, use the Format A: /S command.
6. FORMAT A: /N:9 /T:80 is the command for a high density disk drive.
7. After format is complete, the screen will display the prompt of the default drive.
8. When you use the FORMAT A:/S command, you can use the diskette to start or boot your computer.
9. A diskette must be formatted to be used as a storage diskette.

LAP 5

COPY/COMPARE/ERASE FILES

OBJECTIVES:

- Copy diskettes
- Compare diskettes
- Copy files
- Compare files
- Erase files

REQUIRED MATERIALS:

- Data diskette
- DOS diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Paper and pen or pencil

DO:

1. **Insert the DOS diskette in drive A.**
2. **Perform system boot.**

COPYING AND COMPARING FILES

READ: Commands for copying and comparing files are:

1. DISKCOPY
2. DISKCOMP
3. COPY
4. COMP

COPYING A DISKETTE

Diskcopy makes an exact duplicate of a disk, using 1 or 2 drives. It is most often used to make backup copies of data diskettes or program diskettes. It cannot be used with a hard drive.

♦ WARNING ♦

When performing DISKCOPY command, all data on the target diskette will be lost. DISKCOPY will make an exact copy of disk. The disk will be formatted while copying.

DO: **Key: Diskcopy A: A:**

Notice the space between the command and the two parameters.

Press [Enter].

NOTE: If you see an error message:

Drive type or diskette type not compatible

You may have a bad diskette.

LOOK: Follow the instructions on your screen by using the DOS diskette and the DATA diskette. When prompted for the source diskette, be sure the DOS Diskette is in drive A.

LOOK: This message will appear on the screen:

Insert SOURCE diskette in drive A:

DO: **When prompted for the target diskette, insert the DATA DISK in drive A, and press any key when ready.**

Insert TARGET diskette in drive A:

DO: **Continue to follow the prompts until screen shows:**

Copy another diskette (Y/N)? _

Key: n

LOOK: Now you will see the DOS prompt:

```
A>
```

DO: **Remove data diskette from Drive A.**

COMPARING DISKETTES

READ: To make sure that you have an exact copy of the source diskette, you can use the **DISKCOMP command**. The DOS diskette will be the diskette you will compare.

NOTE: Source diskette is first diskette; target diskette is second diskette.

DO:

1. **Insert DOS diskette in Drive A.**
2. **Key: DISKCOMP A: A:**
3. **Follow the prompts on the screen.**
4. **Since the DOS diskette is the first diskette and is in Drive A, press [Enter]**
5. **When prompted, insert the SECOND diskette in drive A, and press any key when ready.**

LOOK: You will see the drive indicator light on while the SECOND diskette is being compared. Follow the prompts until the prompt shown below appears on the screen.

```
Disk compare ok
Compare more disks (Y/N)? _
```

DO: **Key: n** (You do not have to press the [Enter] key.)

LOOK: The DOS prompt is displayed.

READ: Your target diskette should be exactly like your source diskette.

If the disks are not identical, go through the DISKCOPY and DISKCOMP *procedures again.*

DO:

1. **Remove the diskette from Drive A.**

2. **Label the data diskette with "Your name/DOS data".**

COPYING A FILE

NOTE: If you do not have a hard disk or do not want your students copying and removing files from your hard disk, you may skip this section. If you have two disk drives, you could copy the file to another formatted diskette in Drive B.

READ: The copy command is different from the DISKCOPY command. Diskcopy makes an exact copy of all files. Use the COPY command when you wish to copy a file from diskette to diskette or from a diskette to the hard disk (Drive C) and to install software to directories on the hard disk. (This will be covered in the next LAP.)

DO: **For this procedure, the source diskette (DOS DISK) will be in Drive A, and the target disk will be Drive C.**

RECOVER.COM is the name of a file on the DOS diskette in drive A you will copy from drive A to drive C.

DO:

1. **Insert your DOS diskette in drive A.**

2. **Key: COPY A:RECOVER.COM C: [Enter]**

LOOK: When the copy has been made, this message is displayed:

```
        1 File(s) copies

A>
```

DO: **At the A> prompt, key: DIR C: [Enter]**

LOOK: Check the directory listing on the screen to be sure RECOVER.COM has been copied to C Drive.

DO: **Practice the COPY command again using a file named ASSIGN.COM on your DOS diskette.**

DO: **Key: COPY A: DIR ASSIGN.COM C: [Enter]**

LOOK: This message should appear on the screen:

```
        1 File(s) copies

A>
```

DO: **Check the directory of C: to see if ASSIGN.COM appears.**

COMPARING FILES

READ: To ensure that you have an exact copy of the RECOVER.COM file, you can use the COMP COMMAND.

DO:

1. **Key: COMP A:RECOVER.COM C:RECOVER.COM**
2. **Press [Enter]**

LOOK: The **drive indicator light will be on** while the files are being compared. The screen will display the following message:

```
A:RECOVER.COM AND C:RECOVER.COM

Eof mark not found

Files compare ok

Compare more files (Y/N)? _
```

DO: **Key: n**

DO: **Practice the COMP command again using the file named ASSIGN.COM. Follow the prompts on the screen.**

ERASE COMMAND

READ: The ERASE command is used to remove files from diskettes that you no longer need. Removing old files makes room for new information on a disk. It can eliminate a potential source of confusion, too—you are less likely to use an old version of a program or an old data file.

♦ WARNING ♦

Plan ahead and check your typing when you use ERASE. Once a file has been erased from the disk, you cannot get it back.

DO: **At the DOS prompt, A>, Key:**

ERASE C:RECOVER.COM [Enter]

LOOK: In a moment, DOS displays the prompt:

```
A>
```

READ: The file has been successfully removed if no error message has been displayed.

DO: **Key: DIR C:[Enter]**

LOOK: The directory of C drive will be displayed.

DO: **Key: DIR/P [Enter] if the directory is longer than the screen.**

LOOK: Check to see that the file **RECOVER.COM** is NOT displayed on the directory of C drive.

DO: **At the DOS prompt, Key: ERASE C:ASSIGN.COM**

LOOK: Use the DIR command to check to be sure the file ASSIGN.COM is no longer listed.

DO:

1. **Complete the questions on page 5-7 and turn in to your instructor.**
2. **Continue as instructed.**

POWERING OFF THE COMPUTER

DO:

1. **Remove the DOS diskette from the disk drive and return it to the envelope.**
2. **Power off the computer and monitor if it has a separate switch.**

LAP 5 QUESTIONS

1. The command for making an exact copy of a disk is _____.

2. When using diskcopy, what happens to the data on the target diskette?

   _____

3. To see if you have an exact copy of a disk, use the _____ command.

4. The screen displays _____ to indicate exact copies of diskettes.

5. The _____ command copies a file or files on a diskette or hard disk.

6. To ensure an exact copy of a file, use the _____.

7. The _____ is used to remove files from a diskette or hard disk.

8. Use _____ command to check to see if a file has been erased.

9. What command is used to compare two diskettes?

   _____

10. When a file has been successfully copied, the screen will display:

    _____.

LAP 6

DISK ORGANIZATION/SET UP

OBJECTIVES:

- Set DOS prompt to display current directory
- Understand directory organization
- Create a subdirectory
- Create a file within a subdirectory
- Copy a file within a subdirectory

REQUIRED MATERIALS:

- DOS/data diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Printer
- Paper and pen or pencil

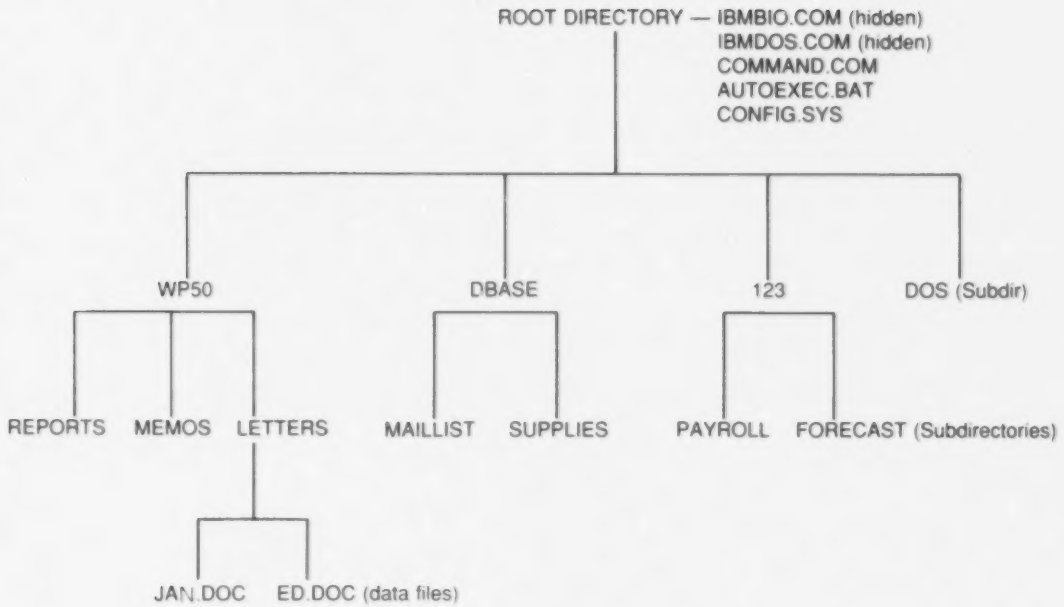
ROOT DIRECTORY AND SUBDIRECTORIES

READ: Whenever you save a file on a diskette or fixed disk, the name of that file is stored in a directory. In DOS 2.1 and later versions, the main directory is called the **root directory**. The root directory should contain the DOS system files, autoexec.bat file, config.sys file, the subdirectories, and other miscellaneous files.

Directories are used to organize hard disks into storage areas for the purpose of disk management. The root directory can contain multiple organizational units. All directories other than the root directories will be called **subdirectories**. Since the root directory can only hold 512 files, you could not store all your program files in the root directory.

A subdirectory is an organizational unit within the root directory used to store files under the same topic. The subdirectory can hold file names as well as the names of subdirectories. Any subdirectory can also hold file names and names of further subdirectories.

One possible structure of directories is illustrated below: All directories under the root directory are called subdirectories.



READ: You can move from one subdirectory to another at any time. The subdirectory you are in is called the current subdirectory or default directory. DOS assumes that any files you try to access are in that current subdirectory.

The rules for subdirectory names are the same as for filenames (up to 8 characters, and an optional period and extensions of up to 3 characters). A good management technique is to assign an extension to a file name and not a subdirectory.

DOS PROMPT

READ: The DOS Prompt, A>, can be modified to identify the current directory path through the use of the PROMPT command. This command provides the user with a map to the current directory within the DOS prompt.

DO:

1. **Insert DOS/data diskette in Drive A.**
2. **Perform system boot.**
3. **Key: PROMPT PG [Enter]**

LOOK: Your DOS Prompt will now change to show:

```
A:\>
```

READ: The backslash \ after the A: prompt indicates you are in the root directory of Drive A. The backslash \ separates subdirectories.

CREATING A SUBDIRECTORY AND A FILE

READ: The function of the MKDIR command is to create a subdirectory. A shorter equivalent of the MKDIR command is MD.

This command can be used on a hard disk and/or diskette. For this lesson, you will practice using the DOS/data diskette in Drive A.

DO:

1. **To create a subdirectory WP50 in the root directory, at the DOS prompt, A:\> Key:**

   MD\WP50 [Enter]

NOTE: If you already have a subdirectory by that name, error message will read:

```
Unable to create directory
```

2. **To create a subdirectory 123 in the root directory, at the DOS prompt, A:\> Key:**

   MD\123 [Enter]

3. **To see the subdirectories you created, (DOS files on your diskette will be displayed on your directory first) Key:**

   DIR [Enter]

LOOK: WP50 <DIR> and 123 <DIR> will be the last files listed on the directory.

```
A>dir

Volume in Drive A has no label
Directory of A:\

WP50  <DIR>
123  <DIR>

    file (s)  xxxxxx bytes free

A:>
```

DO:

1. **To create a subdirectory, LETTERS, in WP50 from the root Directory, at the DOS prompt, A:\> Key:**

   MD\WP50\LETTERS [Enter]

2. **Key: DIR WP50 to see the subdirectory letters listed:**

LOOK:

```
A:\> dir wp50

Volume in Drive A has no label
Directory of A:\WP50

        <DIR>
..      <DIR>
LETTERS <DIR>
    3 file(s) xxxxx bytes free

A:\>
```

READ: Each subdirectory contains two special entries—you see them listed above when you used the DIR command to list a subdirectory. The first contains a single period instead of a filename—it identifies this "file" as a subdirectory. The second entry contains two periods instead of a filename, and is used by DOS to locate the higher level directory that defines this directory—the parent of this directory.

You can make as many subdirectories as will fit on the diskette (or fixed disk), but no path from the root may be more than 63 characters long when spelled out, including all backslashes (\).

NOTE: **COPY CON** is the command to create a file from the keyboard/ console.

DO: **To create a file within a subdirectory:**

1. **Key: COPY CON A:\WP50\LETTERS\ED.DOC [Enter]**
2. **Key: This is the first file you created.**
3. **Press F6 (^Z appears on the screen) [Enter]**
4. **Key: TYPE WP50\LETTERS\ED.DOC [ENTER] to look at the file ED.DOC.**
5. **Key: DIR WP50\LETTERS [Enter] to check to be sure you saved the file ED.DOC.**

DO:

1. **To copy a file within a subdirectory, Key:**

   A:\WP50\LETTERS\ED.DOC WP50\LETTERS\JAN.DOC

2. **Check DIR to be sure you have two files, ED.DOC and JAN.DOC, displayed in the subdirectory of WP50\LETTERS.**
3. **Check to see that the information from the file ED.DOC was copied to the file JAN.DOC. First, you will need to change to the subdirectory LETTERS. Key:**

   CD\WP50\LETTERS (CD is the command to change directory or subdirectory.)

LOOK: Your screen shows the you are in subdirectory LETTERS:

A:\WP50\LETTERS

DO: **Key: TYPE JAN.DOC [Enter]**

LOOK: Screen shows data in JAN.DOC file:

This is the first file you created.

DO:

1. To change to the root directory, Key: CD\
2. Use MD command to make all subdirectories shown in the illustration on page 6-2. Use DIR command to see if they are listed.
3. Print a copy of the directory of the root directory, WP50 subdirectory, DBASE subdirectory, and 123 subdirectory and turn in to your instructor.
4. Complete the questions on page 6-7 and turn in to your instructor.
5. Continue as instructed.

POWERING OFF THE COMPUTER

DO:

1. Remove the DOS diskette from the disk drive and return it to the envelope.
2. Power off the printer, computer and video monitor if it has a separate switch.

LAP 6 QUESTIONS

1. What files should the root directory contain?

   _____

   _____

   _____

2. _____ is the command to create a subdirectory.

3. If you try to create a subdirectory that has already been created, the error message that will appear on your screen is _____.

4. To see a list of the subdirectories created, use the _____ command.

5. The command to create a file from the keyboard is _____.

6. The directory you are in is called the _____.

7. A good management technique is not to assign an extension to a

   _____.

8. Directory names and filenames both have up to _____ characters.

9. The two hidden files are _____.

LAP 7

REMOVE SUBDIRECTORIES

OBJECTIVES:

- Remove a subdirectory
- Remove files from a subdirectory

REQUIRED MATERIALS:

- DOS/data diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Paper and pen or pencil

DO:

1. **Insert DOS/data diskette in Drive A.**
2. **Perform system boot.**
3. **Key: PROMPT PG [Enter]**

REMOVING A SUBDIRECTORY

READ: The function of the RMDIR command is to remove a subdirectory. A shorter equivalent of the RMDIR command is RD.

DO:

1. **To remove a subdirectory, at the A:\> prompt, Key: RD\123 [Enter]**
2. **Key: DIR (123 should not appear).**

REMOVING A SUBDIRECTORY WITH EXISTING FILES

READ: A subdirectory must be empty before it can be removed. If a subdirectory is not empty when you try to remove it, the screen will give you an error message.

DO: **Try to remove the subdirectory, LETTERS. Key:**

RD\WP50\LETTERS [Enter]

LOOK: Error message appears on screen:

```
Invalid path, not directory,
or directory not empty
```

DO: **To change to the subdirectory LETTERS so you can remove the files ED.DOC and JAN.DOC, key:**

CD\WP50\LETTERS [Enter]

LOOK: Screen displays:

```
A:\WP50\LETTERS>
```

♦ WARNING ♦

Be absolutely sure the prompt reads A:\WP50\LETTERS> or you could erase all files on your hard disk if you are in C> drive.

DO: **Key: Erase *.***

READ: All files will be erased from WP50\LETTERS.

LOOK: Screen asks:

```
Are you sure (Y/N)? _
```

DO:

1. **Key: Y [Enter]**
2. **Key: DIR [Enter] (to check to see that all files have been erased from WP50\LETTERS.**

LOOK: Screen displays:

```
Volume in Drive A has no label
Directory of A: WP50\LETTERS

.        <DIR> mm-dd-yy hh:mm
..       <DIR> mm-dd-yy hh:mm
      2 file(s)  xxxxxx bytes free

A:\>
```

READ: A subdirectory can only be removed under these conditions:

1. Subdirectory must be empty (no files or subdirectories).
2. Subdirectory to be removed must not be your current default subdirectory.

Procedure to remove a subdirectory with files:

1. Default to the directory you want to remove.
2. Erase all files in the subdirectory.
3. Change to the root directory.
4. Remove the directory.

READ: You can now remove the subdirectory LETTERS, because you removed the ED.DOC and JAN.DOC files from the subdirectory LETTERS.

DO:

1. **Key: CD\ [Enter] to change to the root directory, A:\>**
2. **From prompt A:\>, Key: RD\WP50\LETTERS [Enter]**
3. **Key: DIR WP50 [Enter] to check to see that LETTERS has been removed.**
4. **Using the procedure above, remove the MAILLIST and SUPPLIES subdirectories.**

DO:

1. **Complete the questions on page 7-4 and turn in to your instructor.**
2. **Continue as instructed.**

POWERING OFF THE COMPUTER

1. Remove the DOS diskette from the disk drive and return it to the envelope.

2. Power off the printer, computer and monitor if it has a separate switch.

LAP 7 QUESTIONS

1. Can a subdirectory containing files be removed? _____

2. If a subdirectory is not empty and you try to remove it, the screen will give you an _____ message.

3. What is the command for erasing all files from a subdirectory?

   _____

4. Procedure to remove a subdirectory containing files is:

   a. _____

   b. _____

   c. _____

5. What command do you enter to find out if you have erased files? _____

6. Use _____ command to erase a file.

7. Use _____ command to remove a subdirectory.

8. What is the command for returning to the root directory? _____

LAP 8

PATHS

OBJECTIVES:

- Change default subdirectory path
- Specify the subdirectory
- Use the path command
- Display directory paths and subdirectories

REQUIRED MATERIALS:

- DOS/data diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Printer
- Paper and pen or pencil

CHANGING THE CURRENT DIRECTORY PATH

READ: The function of the CHDIR command is to change the current directory in use or display the current path. A shorter equivalent of the CHDIR command is CD.

The current directory is the one DOS assumes you are referring to whenever you give a command without specifying a directory. If there are no subdirectories on a diskette, the root directory is always current.

Although this command is normally used with a hard disk, we will practice using it with Drive A.

DO:

1. **Insert the DOS diskette in Drive A.**
2. **Perform system boot.**
3. **Key: PROMPT PG**

DO: **To display the path to the current directory of the default drive, at the DOS prompt, A:\>, Key:**

CD [Enter].

LOOK: Screen shows:

```
A:\

A:\>
```

DO: **To change the current directory to the root directory of the default drive, Key:**

CD\ [Enter]

LOOK: Screen shows:

```
A:\>
```

DO: **To change the current directory from the root or any subdirectory to \WP50 on the default drive, Key:**

CD\WP50 [Enter]

LOOK: Screen shows:

```
A:\WP50>
```

READ: In this example, the first \ specifies the root directory, and WP50 is the path from the root directory to WP50.

DO: **To change the directory from the current directory (WP50) to the current directory path plus MEMOS, Key:**

CD MEMOS [Enter]

LOOK:

```
A:\WP50\MEMOS>
```

DO: **Now display the path to the current/default directory of the default drive, Key:**

CD [Enter]

LOOK: Screen shows:

```
A:\WP50\MEMOS>
```

DO: **To change the current/default directory to the root directory of the default drive, Key:**

CD\ [Enter]

LOOK: Screen shows:

```
A:\>
```

SPECIFYING SUBDIRECTORY PATH

READ: The DOS command, PATH, is used to specify additional subdirectories to be searched when DOS cannot find an executable file (i.e. a command or batch file) in the current/default directory.

The command is used by typing PATH followed by one or more paths, separated by semicolons(;) and pressing **[Enter]**. DOS will search the last subdirectory specified in each path.

PATH A:\DOS;\123;\WP50\MEMOS [ENTER]

After this command, if you give another command (or enter the name of a batch file) that DOS cannot find in the current directory, it will search in order:

1. A:\DOS subdirectory
2. A:\123
3. A:\WP50\MEMOS

USING THE PATH COMMAND

READ: The PATH command causes specified directories to be searched for commands or batch files that were not found by a search of the current directory.

DO: **To set the path to search the root directory as well as WP50 and LETTERS, at the A:\>, Key:**

PATH A:\WP50;\WP50\MEMOS [Enter]

READ: Entering PATH with no parameters causes DOS to display the names that were specified on a previous PATH command.

DO: **At the A:\> prompt, Key:**

PATH [Enter]

LOOK: Screen shows:

```
Path-A:\WP50;\WP50\MEMOS
```

READ: Entering PATH with only a semicolon resets the search path to only the current/default subdirectory.

DO: **KEY: PATH; [Enter]**

Screen shows:

```
A:\>
```

READ: This is the default when DOS is started. In this case, DOS searches only the current directory for commands and batch files.

DISPLAYING DIRECTORY PATHS

READ: The TREE command displays all the subdirectory paths on a drive.

DO: **With the DOS external files on the current directory or drive, to display the directory paths and subdirectories on Drive A, Key:**

DO: **TREE [Enter]**

READ: The TREE/F command is used to display directory paths, subdirectories, and the files in each directory on the current drive or subdirectory.

DO: **At the A> prompt, Key:**

DO: 1. **TREE/F [Enter]**

2. **To print a listing of all subdirectories, Key:**

TREE>PR [Enter]

MORE ABOUT DIRECTORIES AND PATHS

READ: Unlike the root directories, subdirectories are actually files, and are therefore not restricted in size—they can contain any number of files and subdirectories, limited only by the amount of available space on the disk.

The subdirectory names are in the same format as filenames—a name of 1 to 8 characters optionally followed by a period and an extension of 1 to 3 characters. All characters that are valid for a filename are also valid for a directory name.

READ: Each directory can contain file and directory names that also appear in other directories. In other words, two or more files or directories can have the same name, as long as they are defined in separate directories.

Just as DOS remembers a default drive, it can also remember a default directory for each drive on your system. This is called the current directory and is the directory that DOS will search if you enter a filename without telling DOS which directory the file is in.

When you want DOS to create or search for a file, DOS must know three things—the drive, the name of the directory containing the file, and the name of the file. If the file is in the current directory, you don't need to specify a directory. If the file is not in the current directory, you must supply DOS with the path of the directory names leading to the desired directory. The path you specify can be either the path of names starting with the root directory, or the path from the current directory.

The path consists of a series of directory names separated by backslashes (\). If a filename is included, it must also be separated from the last directory name by a backslash.

If a path begins with a backslash, DOS starts its search from the root directory; otherwise, the search begins at the current directory. Nearly all the DOS commands that accept file names also accept path names.

DO:

1. **Complete the questions on page 8-7 and turn in to your instructor.**

2. **Continue as instructed.**

POWERING OFF THE COMPUTER

DO:

1. **Remove the DOS diskette from the disk drive and return it to the envelope.**

2. **Power off the printer, computer and monitor if it has a separate switch.**

LAP 8 QUESTIONS

1. Name the three things that DOS must know to search for a file.

   _____

   _____

   _____

2. If the file is not in the current directory, you must give DOS the _____ of the directory names leading to the desired directory.

3. The directory names in a path are separated by _____.

4. The _____ command shows all the directory and subdirectory paths on a drive.

5. To display directory paths, subdirectories and files in directories, the command is _____.

6. What is the command to print a listing of all subdirectories? _____

7. If there are no subdirectories on a diskette, the _____ directory is always current.

8. To give a command that refers to a file in a different directory, you must specify the _____ to that directory.

LAP 8 QUESTIONS/ANSWERS

1. Name the three things that DOS must know to search for a file.

   the drive

   the name of the file

   name of the directory containing the file

2. If the file is not in the current directory, you must give DOS the path of the directory names leading to the desired directory.

3. The directory names in a path are separated by backslashes .

4. The TREE command shows all the directory and subdirectory paths on a drive.

5. To display directory paths, subdirectories and files in directories, the command is TREE/F .

6. What is the command to print a listing of all subdirectories? TREE> PRN

7. If there are no subdirectories on a diskette, the root directory is always current.

8. To give a command that refers to a file in a different directory, you must specify the path to that directory.

LAP 9

BATCH FILES

OBJECTIVES:

- Use batch files and batch file commands
- Create and enter a batch file
- Use batch files with replaceable parameters
- Create the AUTOEXEC.BAT batch file

REQUIRED MATERIALS:

- DOS/data diskette
- IBM or compatible personal computer with 1 or 2 disk drives and/or hard disk
- Paper and pen or pencil

DO:

1. **Insert the DOS diskette in Drive A.**
2. **Perform a system boot.**

USING BATCH FILES

READ:

DOS allows you to automatically execute a series of DOS commands that are stored in a file called a **batch file**. A batch file is run by entering the file's name at the DOS prompt. DOS then performs each command in the file in sequential order.

Batch files have the extension .BAT. Like other files used as external DOS commands, you only type in the file name of the batch file to run it; the extension .BAT is not necessary.

Each command in a batch file is displayed as it is executed, as if you had entered the command from the keyboard. You can stop the execution of the file at any time by holding down **[Ctrl]** and pressing the **[Break]** key. DOS will then respond with the following message:

Terminate batch job? (Y/N)

If you type **Y**, the rest of the file is aborted, and you return to the DOS command prompt. If you type **N**, only the batch command that is currently being executed will be stopped, and DOS will continue on to the next command in the file.

CREATING A BATCH FILE

READ: How is a batch file created? First, we must decide what steps we want the computer to perform. We want DOS to do the following:

1. Enter new time
2. Enter new date.
3. Clear the screen.
4. Prompt the operator to install a disk into Drive A.
5. Display directory of the disk in Drive A.

READ: **TIME AND DATE COMMANDS**

The TIME and DATE commands, which you enter from the keyboard or as part of a batch file, allow you to set the current time and date in the system. The format of these commands is:

TIME
DATE

Both of these commands prompt you for the necessary information.

READ: **PAUSE COMMAND**

The PAUSE command allows you to temporarily suspend execution of a batch file and display a message. PAUSE can only be used with a batch file. The format for this command is:

PAUSE [remark]

When PAUSE is executed in a batch file, the optional remark is displayed along with message "Strike Any Key When Ready". For example, a remark might be "install the disk with the file to be copied in Drive A." DOS will wait until a key is pressed and then continue with the next command in the file.

The PAUSE command makes it easy to abort a batch file at a specific place. When the PAUSE message comes up, [Ctrl] [Break] will return you to DOS.

READ: **REM COMMAND**

The REM command is used to display explanatory remarks within the batch file during the execution of a batch file. These remarks do not affect how the batch file executes. They help others understand and remind you of what the batch file does when it is executed. The format for the REM command is:

REM [remark]

The remark may be 123 characters long, but a REM command with no remark can be used simply to improve the readability of a batch file.

READ: **CLS COMMAND**

The clear screen command will clear the screen and home (place the cursor in the upper left-hand corner) the cursor. The format for the CLS command is simply:

CLS

READ: **TYPE COMMAND**

The TYPE command will display the contents of each of the batch files to the screen. For Example:

TYPE AUTOEXEC.BAT BATCH FILE

READ: The special batch file, AUTOEXEC.BAT, may be created on the disk with DOS. It may be used for automatically starting application programs. When you start or restart DOS, the command processor searches for the AUTOEXEC.BAT file. If this file is present in the root directory of the drive DOS was started from, DOS automatically executes the file whenever you start DOS.

READ: **ECHO COMMAND**

ECHO OFF suppresses the display of the DOS commands as they are executed. @ECHO will cause the display of the message or remark that is to the immediate right of @ECHO as the batch file is executed.

DO: **To create an AUTOEXEC.BAT file, place your practice diskette in Drive A., set the default drive to A>, and type the following command at the DOS prompt:**

COPY CON: AUTOEXEC.BAT [Enter]

Create an AUTOEXEC.BAT file which will prompt for time and date as follows:

```
CLS
@ECHO. . . WELCOME TO THE IBM PC
@ECHO. . . PLEASE ENTER DATE AND TIME WHEN
PROMPTED
PAUSE
DATE
TIME
```

When you have entered the last command of the batch file, press function key F6 and [Enter]

DO: **Key: TYPE AUTOEXEC.BAT [Enter]**

LOOK: **Screen will display:**

AUTOEXEC.BAT BATCH FILE

Restart the computer by pressing **[Ctr][Alt][Del]** and see if your AUTOEXEC.BAT file executes properly. If it does not, then recreate the file as listed above and restart the computer again.

READ: You can create a batch file using the copy command to move text directly from the keyboard into a disk file. To create a batch file named BACKITUP.BAT containing the series of commands listed earlier,

DO: **Place your diskette in Drive A. set the default drive to A>, key:**

COPY CON: BACKITUP.BAT [Enter]

READ: COPY CON: is a special type of copy command that copies whatever is typed in from the console (or keyboard) to a file on the disk.

NOTE: In console mode, you cannot change what is keyed in on a line after you have pressed [Enter], so be very careful as you key not to make keyboarding errors. If you make a keyboarding error, you can correct the current cursor line only by using the backspace key and rekeying the line, as long as you have not pressed <Enter>.

DO: **Key in the following, pressing [Enter] after each line. If you make a mistake, press [Ctrl] [Break] and start again.**

```
CLS
TIME
DATE
REM . . This batch file makes a backup of itself
REM . . by copying the file BACKITUP. BAT to a REM . .
backup file BACKITUP.BBB
PAUSE   Place disk with file to be copied in Drive A
DIR
REM . . . . Now the files will be copied.
COPY BACKITUP.BAT BACKITUP.BBB
```

When you have entered the last command of the batch file, press F6 and [Enter]. This will end the COPY CON command and will cause the batch file you just created to be stored on the disk.

DO: **To execute this batch file, simply enter the name of the file without the extension at the DOS prompt. DOS knows it is an executable batch file because of the .BAT file extension. Key:**

BACKITUP [Enter]

READ: DOS will respond by executing the batch commands one at a time. If the batch file does not execute correctly, you should recreate the batch file by repeating the above procedure and execute the batch file again.

DO:

1. **With your practice diskette in Drive A, set the default drive to A> and enter the following batch file with dummy parameters as follows: If you make a mistake, press [Ctrl][Break] and start over:**

   COPY CON: AUTOBAK.BAT [Enter]

   ```
   CLS
   REM . . This procedure displays its contents on the
   screen and then backs up files
   PAUSE
   TYPE %0.BAT
   COPY %1 %2
   REM . . End of copy procedure.
   ```

2. **When you have entered the last command of the batch file, press function key F6 and [Enter]**

3. **Execute the batch file by typing the following at the DOS prompt:**

   AUTOBAK *.EXE *.NEW [Enter]

LOOK: DOS will respond by executing the batch commands one at a time. If the batch file does not execute correctly, you should recreate the batch file by repeating the above procedure and execute the batch file again.

CREATING A MENU

DO: 1. **At the A>, key the following entries:**

NOTE: Check each line for errors before pressing **[Enter]**

```
COPY CON:MASTMENU.MNU
ECHO OFF
CLS

1.  WordPerfect
2.  Lotus 123
3.  dBase III
4.  DOS
```

2. **Press F6 [Enter]**

3. **At the A> prompt, key in each of the following batch files:**

```
COPY CON:A:1.bat
ECHO OFF
CD\WP50
DIR/P
CD\
CLS
TYPE MASTMENU.MNU
[F6] [Enter]
```

```
COPY CON:A:2.BAT
ECHO OFF
CD\123
DIR/P
CD\
CLS
TYPE MASTMENU.MNU
[F6] [Enter]

COPY CON: A:3.BAT
ECHO OFF
CD\DBASE
DIR/P
CD\
CLS
TYPE MASTMENU.MNU
[F6] [Enter]

COPY CON: A:4.BAT
ECHO OFF
CD\DOS
DIR/P
CD\
CLS
TYPE MASTMENU.MNU
```

4. Press [F6] [Enter]

DO:

1. Use COPYCON command to recreate the AUTOEX.BAT file on page 9-4 and add the command TYPE MASTMENU.MNU as the last line of the batch file.

2. Reboot the computer using a warm boot to see what AUTOEXEC.BAT file executes.

DO:

3. Complete the questions on page 9-9 and turn in to your instructor.

4. Continue as instructed.

POWER OFF THE COMPUTER

DO:

1. Remove the DOS diskette from the disk drive and return it to the envelope.

2. Power off the printer, computer and monitor if it has a separate switch.

QUESTIONS LAP 9

1. A _____ allows you to automatically execute a series of DOS commands stored in a file.

2. Batch files have the extension called _____.

3. What is the command to stop the execution of a batch file at any time?

   _____

4. The _____ command permits you to temporarily suspend execution of a batch file and display a message.

5. Which command will clear the screen and place the cursor in the upper left-hand corner of the screen? _____

6. _____ command suppresses the DOS commands as they are executed.

7. What is the function key used in a batch file to end the batch? _____

8. What is the procedure to see what the autoexecute file does?

   _____

9. The _____ command is used to display comments during the execution of a batch file.

10. Does the REM command stop the execution of the batch file? _____

ANSWERS TO ACTIVITIES

LAP 2 QUESTIONS/ANSWERS

1. What are the three divisions of the keyboard?

   a. function keys

   b. ten-key pad

   c. typewriter keys

2. If you press a toggle key once, it is on; if you press it again, it is off.

3. Holding down the [Ctrl][Alt] keys and pressing the [Del] key is called a warm boot.

4. The operation taking place while the computer checks itself out is called the Post operation.

5. Starting a computer that has been powered off is called a cold boot.

6. After performing a system boot, the DOS prompt A> appears, telling you that the computer is ready to receive commands.

7. When DOS is loaded and ready, a message asking for the date appears on the screen.

8. Do you power off the computer before or after you remove the diskette from the disk drive? after

QUESTIONS/ANSWERS LAP 3

1. A file name may have up to 8 characters.
2. A file extension may have up to 3 characters.
3. A period is placed between file name and extension.
4. Can spaces be used in a file name? No
5. The drive designator, the file name and the extension are called a file specification.
6. To see the files on a disk, use the DIR command.
7. When entering the DIR command, the first message to appear on the screen is the volume label followed by the name of the directory .
8. Information for each file is displayed on the screen: file name, extension, size of file (bytes), date and time.
9. To see a horizontal or wide display, enter DIR/W .
10. Are internal commands accessible after removing the DOS disk? Yes

LAP 4 QUESTIONS/ANSWERS

1. FORMAT A: is the command to format a disk in A drive.
2. Additional information required for a command is called a parameter.
3. A: after a command is a parameter.
4. Insert a space between a command and parameter. If there is more than one parameter, place a space between each parameter.
5. To prepare a "bootable" diskette in A drive, use the Format A: /S command.
6. FORMAT A: /N:9 /T:80 is the command for a high density disk drive.
7. After format is complete, the screen will display the prompt of the default drive.
8. When you use the FORMAT A:/S command, you can use the diskette to start or boot your computer.
9. A diskette must be formatted to be used as a storage diskette.

LAP 5 QUESTIONS/ANSWERS

1. The command for making an exact copy of a disk is diskcopy .
2. When using diskcopy, what happens to the data on the target diskette? Data is lost.
3. To see if you have an exact copy of a disk, use the DISKCOMP command.
4. The screen displays Disk compare ok to indicate exact copies of diskettes.
5. The COPY command copies a file or files on a diskette or hard disk.
6. To ensure an exact copy of a file, use the COMP command .
7. The ERASE command is used to remove files from a diskette or hard disk.
8. Use DIR command to check to see if a file has been erased.
9. What command is used to compare two diskettes? DISKCOMP A:B:
10. When a file has been successfully copied, the screen will display: 1 file(s) copied.

LAP 6 QUESTIONS/ANSWERS

1. What files should the root directory contain?

   the DOS external files

   autoexec.bat file

   directory of the subdirectories

2. MD is the command to create a subdirectory.

3. If you try to create a subdirectory that has already been created, the error message that will appear on your screen is Unable to create directory .

4. To see a list of the subdirectories created, use the DIR command.

5. The command to create a file from the keyboard is COPY CON .

6. The directory you are in is called the default directory .

7. A good management technique is not to assign an extension to a subdirectory .

8. Directory names and filenames both have up to eight characters.

9. The two hidden files are IBMBIO.COM and IBMDOS.COM .

LAP 7 QUESTIONS/ANSWERS

1. Can a subdirectory containing files be removed? No

2. If a subdirectory is not empty and you try to remove it, the screen will give you an error message.

3. What is the command for erasing all files from a subdirectory? ERASE *.*

4. Procedure to remove a subdirectory containing files is:

   a. Default to the directory you want to remove.

   b. Erase all files.

   c. Remove the directory.

5. What command do you enter to find out if you have erased files? DIR

6. Use ERASE command to erase a file.

7. Use RD command to remove a subdirectory.

8. What is the command for returning to the root directory? CD\

LAP 8 QUESTIONS/ANSWERS

1. Name the three things that DOS must know to search for a file.

   the drive

   the name of the file

   the name of the directory containing the file

2. If the file is not in the current directory, you must give DOS the path of the directory names leading to the desired directory.

3. The directory names in a path are separated by backslashes .

4. The TREE command shows all the directory and subdirectory paths on a drive.

5. To display directory paths, subdirectories and files in directories, the command is TREE/F .

6. What is the command to print a listing of all subdirectories? TREE> PRN

7. If there are no subdirectories on a diskette, the root directory is always current.

8. To give a command that refers to a file in a different directory, you must specify the path to that directory.

QUESTIONS/ANSWERS LAP 9

1. A batch file allows you to automatically execute a series of DOS commands stored in a file.

2. Batch files have the extension called .BAT .

3. What is the command to stop the execution of a batch file at any time? [Ctrl Break]

4. The PAUSE command permits you to temporarily suspend execution of a batch file and display a message.

5. Which command will clear the screen and place the cursor in the upper left-hand corner of the screen? CLS

6. ECHO OFF command suppresses the DOS commands as they are executed.

7. What is the function key used in a batch file to end the batch? [F6]

8. What is the procedure to see what the autoexecute file does? reboot the system, [Ctrl,Alt,Del]

9. The REM command is used to display comments during the execution of a batch file.

10. Does the REM command stop the execution of the batch file? No